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5   IN THE UNITED STATES DISTRICT COURT

6   FOR THE NORTHERN DISTRICT OF CALIFORNIA

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8 SYMANTEC CORPORATION,   No. C 12-0700 SI

9   Plaintiff,   **CLAIM CONSTRUCTION ORDER**

10   v.

11 VEEAM SOFTWARE CORPORATION,

12   Defendant.
                                        /
13

14   On January 23, 2013, the Court held a *Markman* hearing regarding the construction of disputed

15 terms in four patents owned by plaintiff. Having considered the arguments of counsel and the papers

16 submitted, the Court construes the disputed terms as follows.

17

18   **BACKGROUND**

19   This is a patent infringement action initiated by plaintiff Symantec Corporation against defendant

20 Veeam Corporation, pertaining to U.S. Patents No. 7,191,299 ('299), No. 7,254,682 ('682), No.

21 6,931,558 ('558) and No. 7,093,086 ('086).[1] The parties agree that none of the terms to be construed

22 is case dispositive. Joint Claim Construction Statement (Dkt. 73) at 7. Symantec is a software provider

23 which has developed and owns patents in backup and recovery software. The '299 patent ("Method and

24 System of Providing Periodic Replication") provides "solutions for storage life cycle management," and

25 the '682 patent ("Selective File and Folder Snapshot Image Creation") teaches a "snapshot" method to

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27   [1] The '299 and '682 patents are asserted in Case No. C 12-700. The '558 and '086 patents are
    asserted in Case No. 12-1035, which has been consolidated with Case No. C 12-700. All citations are
28 to 12-700 unless otherwise indicated.

United States District Court
For the Northern District of California

1   selectively back-up desired files. Compl. ¶¶ 25, 26. The '086 patent ("Disaster Recovery and Backup

2   Using Virtual Machines") teaches a method for a "distinct, remote backup" on a separate storage device,

3   and the '558 patent ("Computer Restoration Systems and Methods") provides for backup and restoration

4   of an entire machine on a network in the event that the client device should become incapable of booting

5   up on its own. Compl. ¶¶ 25, 26 (No. C 12-01035, Dkt. 1). Defendant Veeam produces the Backup &

6   Replication software suite, which "provides image-based backup tools," and competes with Symantec's

7   products in the market. *Id.* ¶ 28.

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9   **LEGAL STANDARD**

10   Claim construction is a matter of law. *Markman v. Westview Instr., Inc.*, 517 U.S. 370, 372

11 (1996). Terms contained in claims are "generally given their ordinary and customary meaning. *Phillips*

12 *v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). "[T]he ordinary and customary meaning of a

13 claim term is the meaning that the term would have to a person of ordinary skill in the art in question

14 at the time of the invention." *Id.* at 1312. In determining the proper construction of a claim, a court

15 begins with the intrinsic evidence of record, consisting of the claim language, the patent specification,

16 and, if in evidence, the prosecution history. *Id.* at 1313; *see also Vitronics Corp. v. Conceptronic, Inc.*,

17 90 F.3d 1576, 1582 (Fed. Cir. 1996). "The appropriate starting point . . . is always with the language

18 of the asserted claim itself." *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed.

19 Cir. 1998); *see also Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997).

20   Accordingly, although claims speak to those skilled in the art, claim terms are construed in light

21 of their ordinary and accustomed meaning, unless examination of the specification, prosecution history,

22 and other claims indicates that the inventor intended otherwise. *See Electro Medical Systems, S.A. v.*

23 *Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1053 (Fed. Cir. 1994). While claims are interpreted in light

24 of the specification, this "does not mean that everything expressed in the specification must be read into

25 all the claims." *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 957 (Fed. Cir. 1983). For instance,

26 limitations from a preferred embodiment described in the specification generally should not be read into

27 the claim language. *See Comark*, 156 F.3d at 1187; *see also Decisioning.com, Inc. v. Federated Dep't*

28 *Stores, Inc.*, 527 F.3d 1300, 1314 (Fed. Cir. 2008) ("[The] description of a preferred embodiment, in the

absence of a clear intention to limit claim scope, is an insufficient basis on which to narrow the claims."); *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1345-46 (Fed. Cir. 2008) (refusing to limit claim language to the disclosed embodiment in the absence on indication that the inventor meant to limit the claim language). However, it is a fundamental rule that "claims must be construed so as to be consistent with the specification." *Phillips*, 415 F.3d at 1316.

Finally, the Court may consider the prosecution history of the patent, if in evidence. *Markman*, 52 F.3d at 980. In most situations, analysis of this intrinsic evidence alone will resolve claim construction disputes. *See Vitronics*, 90 F.3d at 1583. Courts should not rely on extrinsic evidence in claim construction to contradict the meaning of claims discernable from examination of the claims, the written description, and the prosecution history. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583). However, it is entirely appropriate "for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field." *Id.* Extrinsic evidence "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317. All extrinsic evidence should be evaluated in light of the intrinsic evidence. *Id.* at 1319.

DISCUSSION

I.   Terms on Which the Parties Agree

Patent	Term	Construction
'682	item	file or folder
'086	a destination separate from a storage device to which the first virtual machine is suspendable	a destination separate from a storage device on which the state of the first virtual machine is stored when the first virtual machine is suspended
'086	memory of the virtual machine	volatile storage of the virtual machine
'086	virtual disk	non-volatile storage of the virtual machine

II.   Terms for Construction

A.   '558 Patent

The '558 patent ("Computer Restoration Systems and Methods") is drawn to a method of restoring a client device on a network when the device has failed and is unable to boot on its own:

> The method includes booting the client device over the network in the restoration operation, [and] configuring the client device according to the boot program. . . . The client device is booted over the network, rather than locally to the client device by boot disk or otherwise . . . . Alternatively, the client device is reset and booted via a control device either locally or otherwise connected to the client device, and substantially according to the method of the network boot.

'558 (Abstract). The problem addressed by the '558 patent is computer system "crash" events that have conventionally required "system administrators to completely reconfigure the crashed computer, including, without limitation, by reconfiguring machine non-volatile random access memory (NVRAM) settings, loading the computer operating system, replacing applications and files, retrieving backed up data, and thoroughly re-configuring the operating system, application programs, drivers, and other operational settings." '558, 1:21-28. The invention addresses this problem through the use of a storage manager application that is able to automatically record the configuration of a client device, and a boot program that is used to re-boot the client device after a crash; these applications function on a server device connected to the client device via a network. A representative claim states (terms to be construed are in bold):

> **1.** A device restoration system, for restoring a **client device** to a state prior to a major failure, comprising:
> a server device;
> a network communicatively interconnecting the client device and the server device;
> a storage manager accessible to the server device for saving the state, wherein the state includes client disk configuration information; and
> a **network boot** in which the server device causes the client device to boot.

'558, 9:60-10:2.

1. *client device*

Symantec	Veeam
"any processing or communications device capable of communicating with the server device over the network"	"the physical computer that is to be restored" amended construction: "the computer (i.e. non-virtual machine) that is to be restored"

1   Veeam contends that "client device" applies only to (1) computers, and excludes other devices,

2   and (2) physical, not virtual, machines; Symantec disputes this contention. *See* Defendant Veeam's

3   Responsive Claim-Construction Brief (Dkt. 88, "Def. Br.") at 3-4. As to the first issue, the Court finds

4   that while in many of the embodiments the "client device" is depicted as a computer (*see e.g.*, Figure

5   3, component **106** [depicting "client device" as a standard computer tower]), the specification teaches

6   that "client device" includes but is expressly not limited to computers.[2] Moreover, the Federal Circuit

7   has consistently advised against limiting claims to the preferred embodiments in figures. *See Playtex,*

8   *Inc. v. Proctor & Gamble Co.*, 400 F.3d 901, 907 (Fed. Cir. 2005) ("By its reliance on the figures, the

9   district court improperly limited claim 1 to a preferred embodiment."). Additionally, the *Authoritative*

10   *Dictionary of IEEE Standards Terms* defines "device" as either a hardware component "that is capable

11   of performing a specific function" or a software "mechanism or piece of equipment designed to serve

12   a purpose or serve a function." *IEEE 100: The Authoritative Dictionary of IEEE Standard Terms* (7th

13   ed. 2000).[3] Veeam's point that the patent uses "client device" and "client computer" interchangeably,

14   does not alter this conclusion because the specification clearly contemplates "devices" including devices

15   *other* than "computers."

16   As to the second issue, the Court finds no reason to limit "client device" to physical devices and

17   exclude virtual machines.[4] Veeam argues that, in the context of the patent and as used in the figures

18   (*e.g.*, Figure 3, component **106**), a computer is a physical machine rather than a virtual machine. Veeam

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20   [2] '558 Patent at 9:15-22 teaches "combinations of client devices, such as the client computer
     106 and others, as well as server devices, such as the server computer **104**, its various server components
21   **300**, and others, including, for example, those elements, and even additional or alternative elements, and
     other combinations, are all possible in keeping with the scope of the embodiments herein." Even
22   component 106 - which shows a standard computer tower – is itself broadly defined as "*any* processing
     or communications device." '558 Patent at 4:5-8 (emphasis added).
23

24   [3] "Dictionaries and technical treatises, which are extrinsic evidence, hold a special place and
     may sometimes be considered along with the intrinsic evidence when determining the ordinary meaning
25   of claim terms." *Bell Atl. Network Services, Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258,
     1267 (Fed. Cir. 2001)

26   [4] The *Authoritative Dictionary of IEEE Standards Terms* defines "virtual machine" as "a
27   functional simulation of a computer and its associated devices." Symantec defines virtual machine,
     without citation, as "a collection of resources running on a physical machine that appears as an
28   independent physical machine to executing top level operating systems and applications." Symantec's
     Opening Claim Construction Brief (Dkt. 81, "Pl. Br.") at 3 (FN 1).

1   notes that the patent does not mention "virtual" machines at any point, despite the fact that virtual

2   machines were well known at the time. However, as noted above, the fact that none of the figures

3   includes use of a virtual machine is not dispositive and Veeam's argument that virtual machines were

4   well known in the art supports Symantec's position that "any device" would not have been limited to

5   only physical devices. Symantec's authority is persuasive. *See Renishaw PLC v. Marposs Societa'per*

6   *Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998) ("[I]f an apparatus claim recites a general structure (*e.g.*,

7   a noun) without limiting that structure to a specific subset of structures (*e.g.*, with an adjective), we will

8   generally construe the claim to cover all known types of that structure that are supported by the patent

9   disclosure.").

10   In the absence of any support in the patent for limiting this term as Veeam proposes, the Court

11   adopts Symantec's proposed construction and construes **client device** as: **any processing or**

12   **communications device capable of communicating with the server device over the network**.

13

14   **2. *network boot***

15

Symantec	Veeam
"operation that starts or resets a client device over the network"	"a process that retrieves and loads a boot image over a network accessed by the client device rather than from a local disk" amended construction: "a process on the client device that runs a custom boot program to retrieve information necessary to reconfigure the client device over a network, rather than from a local disk"

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21   Veeam contends that "network boot" requires more than merely starting or resetting a client

22   device; it requires, according to Veeam, running a custom boot program on a client device. Def. Br. at

23   6. Symantec responds that Veeam's limitation is not supported by the patent language. Pl. Reply at 4.

24   The specification uses "network boot" as a broad term for the entire boot operation: "The client

25   boot program is delivered over the network 100 to the client computer 106 once the client computer 106

26   initializes over the network in a *network boot operation*." '558, 6:43-45 (emphasis added). This

27   operation may include standard components in addition to any custom programs: "network boot

28   performed by the client computer 106 in such manner uses the standard 'bootp' and/or 'bootparams'

1   protocols to network boot the client computer 106 from the boot server 304." '558, 6:59-62. The

2   initialization of the network boot operation may also precede the custom program step, as illustrated

3   in Fig. 6, where "network boot" step 602 is shown taking place prior to the "runs customized boot

4   program" step 608. Further, the network boot is described as "initiated by the client computer 106 *via*

5   *the boot server* 304 in communication over the network 100 with the client computer 106." '558, 8:7-9

6   (emphasis added). Finally, Claim 1 itself states: "a network boot in which *the server device causes* the

7   client device to boot." '558, 9:60-67 (emphasis added). Therefore, Veeam's amended construction is

8   inappropriately limiting, as the patent language indicates that "network boot" operation may be broader

9   than "a process on the client device." In Veeam's Tutorial document, p. 34, Veeam defines "network

10   boot" as comprised of three steps from Fig. 4: steps 408 (client boot from boot server and runs program),

11   410 (client mounts files from server), and 412 (client configures disk), circled in blue. But Veeam does

12   not explain why it draws the line there, rather than including step 406 (BMR server creates client boot

13   program and makes available boot image and file systems) or 404 (BMR server retrieves client

14   configuration data from TSM server), which Symantec contends may be part of the network boot. The

15   main focus of the patent is that the client device need not be started manually after crashing, but can be

16   restarted remotely. Therefore, a network boot is not solely a custom or client-specific "process on the

17   client device," because the client device would remain in the crash state without further input delivered

18   over the network.

19   Symantec's proposed definition, on the other hand, does not add clarity because it introduces

20   new undefined terms. "Start" is not used anywhere in the specification, and "reset" is not explicitly

21   defined, but may refer to the initial power-on of the device after the crash, rather than entire network

22   boot operation.[5]

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24   [5] The specification states:

25   Remote re-boot and restoration can also occur according to the method 400, for example, in the case of a system like an AIX SP node, where the physical "front

26   panel" (i.e., on, off, *reset* and similar control circuitry and equipment) of the client computer 106 can be manipulated through software from another device,

27   so that the controlling device can electrically (and, if necessary, mechanically) initiate a *reset* as if the reset button on the client computer 106 is triggered.

28   '558, 5:58-66 (emphasis added).

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1   Neither proposed construction improves on the claim language. Therefore, the Court determines

2 that it will not further define "**network boot** in which the server device causes the client device to

3 boot."[6]

4

5   **B. '086 Patent**

6   The '086 patent ("Disaster Recovery and Backup Using Virtual Machines") is drawn to a method

7 of backing up virtual machines. A representative claim reads (terms to be construed are in bold):

8   **1.** A computer readable medium storing a plurality of instructions comprising instructions
   which, when executed:
9   (i) capture **a state of a first virtual machine** executing on a first computer system, the
   state of the first virtual machine corresponding to a point in time in the execution of the
10   first virtual machine,
            wherein the first virtual machine comprises at least one virtual disk storing at
11   least one file used by at least one application executing in the first virtual
            machine, and
12   wherein the state of the first virtual machine comprises the at least one file;
   and
13   (ii) copy at least a portion of the state to a destination separate from a storage device to
   which the first virtual machine is suspendable,
14   wherein **suspending the first virtual machine is performed responsive to a
            suspend command**.

15 '086, 14:43-59. The problem addressed by the '086 patent is hardware failures that render data stored

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   on the hardware unreadable and the inability of prior-art systems to back up data in open applications.
17
   '086, 1:41-45, 3:43-59.
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         1. *a state of [first] virtual machine*
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Symantec	Veeam
"information regarding the first virtual machine"	"at least a portion of a virtual machine's memory and disk(s) to permit the virtual machine to resume execution of the application at the point in time the state was captured"

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24   Veeam contends that "a state of [first] virtual machine" requires both (1) data stored in virtual

25 machine's memory (volatile storage of virtual machine) *and* (2) data stored on virtual machine's disk

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27   [6]Neither party requested a definition of the term "boot," as used in the patent, and accordingly
   none is given. Should this matter go to trial, it might assist the jury in understanding the patent claims
28 if such a definition were provided. The parties may propose an agreed-upon definition at that time.

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(non-volatile storage of the virtual machine). Def. Br. at 8. Symantec responds that the limitation of requiring both a portion of memory and a portion of the disk is not required by the specification, which uses the permissive "may" form for the embodiments.[7] Pl. Reply at 5. Symantec also contends that "state" is defined more exactly in the context of the relevant claims:

> The "primary objective" [of the '086 patent] is backing up virtual machines . . . and the claims detail precisely what information is required from the state for each claim. [*See* '086] at 14:51-52 (state comprises a file used by an application); 15:21-23 (state comprises a non-persistent virtual disk and log of uncommitted updates).

Id.

The specification indicates that the purpose of recording a state is to permit backup of the system: "[t]o create a backup, the computer system may capture a state of each virtual machine and backup the state." '086, 2:55-56. But the specification does not explicitly address what data a "state"[8] must contain, providing only examples, such as: "all the state needed to restart the application on the second computer system (e.g. the operating system and its configuration settings, the application and its configuration settings, etc.)," '086, 1:64-67; "[t]he state may include the information in a virtual machine image created in response to a suspension of the virtual machine," '086, 2:60-62; and "only a portion of the state . . . (e.g. non-persistent virtual disks may be backed-up by copying the COW files corresponding to those disks, if an initial copy of the disk file has been made)," '086, 3:3-7.[9] Thus, "state" may contain information such as configuration settings, information in the virtual machine image, or updates to disk blocks in log form. Veeam does not explain why these types of "state"information require both a portion of the virtual machine's disk and virtual machine's memory. Therefore, Veeam's proposed definition that a "state" *must* require both a portion of memory and a portion of the disk of the virtual machine is not supported by the specification.

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[7] This patent avoids describing the invention definitively. *See, e.g.* '086, 2:4-7 ("backup may occur . . . in various embodiments").

[8] With respect to software, "state" is a general term that means "a condition or mode of existence that a system, component, or simulation may be in" or "the values assumed at a given time by the variables that define the characteristics of a system, component, or simulation." *IEEE 100: The Authoritative Dictionary of IEEE Standard Terms* (7th ed. 2000).

[9] The COW (Copy-On-Write) file "stores updated copies of disk blocks in a log form." '086, 6:65-66.

1   Symantec's proposed definition, on the other hand, is overly broad because some information

2   regarding the virtual machine is not "state." However, the specification clearly indicates that a "state"

3   is recorded to permit the virtual machine to resume the interrupted application to the point in time the

4   state was recorded.[10] Therefore, the Court construes **a state of [first] virtual machine** as: **information**

5   **regarding the [first] virtual machine to permit the virtual machine to resume execution of the**

6   **application at the point in time the state was captured**.

7

8   **2.** *suspending the [first] virtual machine is performed responsive to a suspend*
    command

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Symantec	Veeam
"in response to receiving a suspend command, pausing the execution of the virtual machine"	"in response to receiving a suspend command, pausing the execution of the virtual machine and storing the state on a storage device to which the first virtual machine is suspendable"

13   The parties agree that "suspending" includes pausing the execution of the virtual machine in

14   response to a suspend command. Def. Br. at 10. Veeam argues that"suspending" itself also necessarily

15   includes storing the information to a storage device. *Id.* However, the statements relied on by Veeam

16   do not support Veeam's argument. Veeam first quotes the specification:

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18   The VM kernel may support a command to suspend the virtual machine. In
     response to the command, the VM kernel may write an image of the virtual
19   machine to the storage device 22 . . . thus capturing the current state of the virtual
     machine . . .

20   '086, 4:19-23. This statement, however, only indicates that in addition to suspending, i.e., pausing, the

21   virtual machine *may* also write a copy to the storage device, but it does not indicate that copying is a

22   required part of the "suspend" step itself. The patent treats "suspending" and "copying" as separate

23   steps: "The checkpoints may be created by capturing state while the virtual machines continue to

24   _____

25   [10] The specification states, for example: "In disaster recovery configurations, the state of data
     may periodically be checkpointed from a first computer system to a second computer system," '086,
     1:50-53; "The recovery program 78 may select the desired checkpoint (block 100). The desired
26   checkpoint may be passed to the recovery program 78 as an operand, or may be selected by the recovery
     program 78. Typically, the desired checkpoint may be the most recent checkpoint, unless that
27   checkpoint appears to be corrupted." '086, 10:42-47.
     .

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execute, or by suspending the virtual machines *and copying* the suspended image. As mentioned above,

in some cases, only a portion of the state or image may be copied." '086, 3:17-22 (emphasis added).

Further, copying may occur without suspending: "while some embodiments may suspend the virtual

machines to make copies of the images. . . other embodiments may cause the state of the virtual

machines to be generated for copying without suspending the virtual machines." '086, 11:4-5. Thus,

the plain meaning of "suspending" as "pausing the execution," is the most logical interpretation.[11] The

Court finds insufficient evidence that would require altering the plain meaning of "suspending." While

the claimed method entails a combination of pausing and copying steps, there is no indication that the

patentee intended to use the term "suspending" in any other but the ordinary sense. Therefore, the Court

construes **suspending the [first] virtual machine is performed responsive to a suspend command**

as: **in response to receiving a suspend command, pausing the execution of the virtual machine**.

C. '299 Patent

The '299 patent ("Method and System of Providing Periodic Replication") is drawn to a method

of backup by means of multiple storage volumes and corresponding storage volume maps. A

representative claim reads (terms to be construed are in bold):

> **1.** A method comprising:
> creating a **storage object** corresponding to a storage volume,
>> wherein said storage object comprises a point- in-time copy of said storage volume
>> and a storage volume map; and
> replicating said storage volume utilizing said storage object,
>> wherein said creating a storage object comprises creating a first storage object
>> corresponding to a first storage volume, said first storage object comprises a first
>> point-in-time copy of said first storage volume and a first storage volume map, said
>> replicating said storage volume comprises copying data from said first
>> point-in-time copy of said first storage volume to a second storage volume, and
>> said copying data from said first point-in-time copy comprises, **synchronizing said
>> first point-in-time copy of said first storage volume and said second storage
>> volume**.

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[11] Veeam also contends that its proposed construction is supported by Symantec's position during construction of the same claim in concurrent litigation, *Symantec Corp. v. Acronis, Inc.* (Case No. 11-cv-05310). Veeam argues that Symantec's proposed definition of "destination separate from a storage device *to which the first virtual machine is suspendable*" as "a destination separate from a storage device on which the state of the first virtual machine is stored when the first virtual machine is temporarily prevented from executing" indicates that the storage step is part of "suspending." Def. Br. at 12 (emphasis added). However, the Court finds that "suspendable to" is a separate term that does not bear on the definition of "suspending" in the present context.

'299, 11:9-27. The problem addressed by the '299 patent is consistent ordering of replication volumes. '299, 1:46-50.

1. *storage object*

Symantec	Veeam
"information about the changes to a volume with respect to a point in time image of that volume"	"a structure created to hold corresponding items"

Veeam contends that the dispute between the parties is whether "storage object" is "merely information, as proposed by Symantec, or is a structure to hold information, as proposed by Veeam." Def. Br. at 12. Veeam does not explain how "structure" is different from mere "information" in this context, but contends that a "storage object" is a "structure created to include specific information such as a point-in-time copy of a volume and a volume map." *Id.* at 13-14. Veeam's proposed definition, however, introduces further ambiguity by using the undefined terms "to hold" and "corresponding items."

Symantec's proposed definition comes from a section of the specification that describes a type of storage object:

> A snappoint storage object provides *information about the changes to a volume with respect to a point in time image of that volume*. Such snappoints give applications the ability to create incremental images of a volume, retrieve the information about the changed regions between any two images and extract the changed regions.

'299, 5:11-16 (emphasis added). In its reply brief, Symantec argues that "snappoint storage object" is the same as the "storage object" claimed in the patent. Reply at 8. However, Symantec's proposed definition is merely a description of one kind of information a storage object provides – *e.g.*, information about changes to a volume – rather than a full definition of the term. The Court finds that "storage object" is adequately defined in the claim language itself: "creating a storage object corresponding to a storage volume, wherein said storage object comprises a point-in-time copy of said storage volume

and a storage volume map." No further definition or construction is required.[12]

2 *synchroniz[e][ing] said first point-in-time copy of said first storage volume and said second storage volume*

Symantec	Veeam
"transferring a full or incremental copy of data from the point-in-time copy to the second storage volume"	"initially copying all data from the point-in-time copy to the second storage volume so that only changes to the first storage volume will be copied thereafter" amended construction: "initially copying all data from the point-in-time copy to the second storage volume so that only changed regions of the first storage volume will be copied thereafter"

The parties dispute whether "synchronizing" is limited to "initial synchronization, as proposed by Veeam, or includes both initial synchronization and periodic (incremental) replication, as proposed by Symantec." Def. Br. at 14. Symantec argues that "synchronization" includes replication of data using incremental backups. Reply Br. at 9.

Veeam argues that there are "two separate and distinct operations during the replication process—initial synchronization and periodic replication." Def. Br. at 14. (citing specification: "following initial synchronization . . . periodic replication is performed by . . . refreshing the point-in-time copy." '299, 6:16-19. Symantec counters that Veeam's definition imports a negative limitation, because its requirement that "only changed regions of the first storage volume will be copied thereafter" is equivalent to requiring that "no data from regions other than changed regions may be copied." Reply at 10.

The Court finds that the specification envisions initial synchronization and replication as two different processes, depicted in Figure 2 and Figure 3. These figures differ in that Figure 3, showing replication, contains a second data volume map 320 that is "utilized to track or identify regions within primary data volume 310a which were modified following initial synchronization." '299, 6:31-33. While the Federal Circuit has cautioned against reading limitations into the claims from the

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[12] The definition of "storage object" in Claim 1 is also identical to the definition of "snappoint storage object" in the specification: "a 'snappoint' storage object includ[es] a point-in-time copy 216 or 'snapshot' of said primary data volume 210a and a data volume map 218 (current)." '299, 4:37-39.

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embodiments, "when the claim language itself lacks sufficient clarity to ascertain the scope of the claims," the courts must look to the written description for guidance. *Deering Precision Instruments, L.L.C. v. Vector Distrib. Sys., Inc.*, 347 F.3d 1314, 1324 (Fed. Cir. 2003). In addition, consistent usage of a claim term in the specification can be definitional. *Nystrom v. TREX Co.*, 424 F.3d 1136 (Fed. Cir. 2005) (finding that consistent description from the specification required "boards" to be made of wood). Because this patent contains virtually no description outside of the description of the embodiments, and uses "synchronization" and "replication" in a manner that consistently indicates two different processes in the embodiments, the Court concludes that "replication" is the process of transferring the changed regions after the initial synchronization, while initial synchronization is the process of making a full copy of all data. However, Veeam does not sufficiently address why the limitation that "only changed regions of the first storage volume will be copied thereafter" should be imported into the definition of replication. While the replication process may be primarily concerned with tracking changed regions, it is possible that some unchanged data may also be copied as part of replication. Veeam merely states:

> Symantec argues that Veeam's construction is improper because incremental replication may copy more than just the changed data in a region. (Symantec Br. at 10.) To address this point, Veeam has modified its construction to "initially copying all data from the point-in-time copy to the second storage volume so that only changed regions of the first storage volume will be copied thereafter."

Def. Br. at 17. The Court does not find sufficient evidence to import this limitation on the subsequent replication process into the definition of "synchronizing," which takes place before replication. Therefore, the Court construes **synchroniz[e][ing] said first point-in-time copy of said first storage volume and said second storage volume** as: **initially copying all data from the point-in-time copy to the second storage volume**.

D. '682 Patent

The '682 patent ("Selective File and Folder Snapshot Image Creation") is drawn to a method of preserving a selective rather than a full-volume copy. A representative claim reads (terms to be construed are in bold):

> **1.** A method for using a snapshot and creating an image file that holds selected items found on a computer-readable storage volume, without permanently removing data from the volume, the method comprising the steps of:

1   identifying at least one desired item which is located on the storage volume;
2   enabling a snapshot of at least a portion of the storage volume which includes the desired
          item;
     after said enabling step, **deleting** at least one item other than the desired item;
3   after said deleting step, **imaging** the desired item into an image, the image not containing
          the deleted item(s) by reason of said deleting step; and
4   after said imaging step, releasing snapshot resources.

5   '682, 16:2-14.

6   ### 1. *storage volume*

7   The parties agree on Veeam's amended construction: "a fixed amount of storage on a disk, tape,

8   memory stick, or other computer-readable storage medium, which is organized by at least one file

9   system." Reply at 10.

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11   ### 2. *deleting . . . item*

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Symantec	Veeam
"removing or hiding some or all of the data of an item"	"hiding an item from applications, removing the ability for an item to be accessed, or removing all traces of the item from storage"

15   The parties disagree about whether "deleting … item" requires removing or hiding the entire

16   item (as proposed by Veeam) or just some of the item (as proposed by Symantec). Def. Br. at 17-18.

17   The specification explicitly states:

18   The term "deleting" does not necessarily require completely removing all traces
19   of an item's data from storage. It can be sufficient to delete an item by marking
             the item as being hidden from applications such as word processors, databases,
20   and spreadsheets. In a system without snapshots enabled, deleting would generally
             mark as available the space allocated to the deleted item. In a snapshot-enabled
21   system, however, some data deleted after the snapshot was enabled can be
             recovered.

22   '682, 3:28-36. Therefore, Symantec's proposed definition is inaccurate because while not all traces of

23   the item need to be removed, the entire item must be hidden from applications.

24   Symantec argues that Veeam's proposed definition improperly limits the term to examples in

25   the specification. Reply at 11. The case cited by Symantec, however, is readily distinguishable because

26   it involves specific, express limitations on a term that are only present in some embodiments. *Falana*

27   *v. Kent State Univ.*, 669 F.3d 1349, 1355 (Fed. Cir. 2012) ("The claims here do not contain express

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limitations concerning a HTP that is substantially independent of temperature."). In the present case, the passage quoted above is found in the "Detailed Description" section of the specification that provides definitions for the terms in the document, specifically stating: "In describing the invention, the meaning of important terms is clarified, so the claims must be read with careful attention to these clarifications." '682, 2:51-52. The section contains clearly identified and intended definitions of "folder," "item," and "volume" before it gets to the term "deleting." '682, 3:6-27. The Federal Circuit has recognized that claims "must be read in view of the specification, of which they are a part." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) *aff'd*, 517 U.S. 370 (1996). Further, a patentee may provide a definition in the specification through the use of descriptive embodiments when it refers to "the invention" or the "present invention" as a whole. *Honeywell Int'l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006). Therefore, the Court finds that the specification adequately defines the term "deleting" at '682, 3:28-33. Veeam's proposed definition, however, adds the clause "removing the ability for an item to be accessed" that is not present in that passage, and may be interpreted as contrary to the statement that "some data deleted after the snapshot was enabled can be recovered," '682, 3:24-36, i.e., some data may be accessed with recovery tools. Therefore, in agreement with the specification, the court construes **deleting . . . item** as: **hiding an item from applications or removing some or all of the item data from storage.**

3. *imag[ing] . . . item*

Symantec	Veeam
"creating a backup of an item using a block-by-block backup, not a file-by-file backup"	"copying only those data blocks associated with the desired item"

The parties dispute whether "imaging a desired item" is limited to "copying only those data blocks of a desired item, as proposed by Veeam, or also includes imaging data other than the desired item." Def. Br. at 19. Symantec responds that Veeam's construction for this term imports a negative limitation into this claim with its requirement that "only those data blocks associated with the desired item" are copied,. Reply at 12. whereas, Symantec argues, "the '682 patent uses block-by-block

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imaging, so those hidden [or deleted] data blocks for the undesired items are copied into the image." *Id.*

Veeam's proposed definition does not add clarity to the term "imaging" because it does not define "data blocks associated with" or "desired item." Further, Claim 13 of the '682 patent explicitly recites "imaging the desired items only (no undesired items)." '682; 17:13-14. Under the doctrine of claim differentiation, this dependent claim suggests that "imaging" used by itself, without the limitation "no undesired items," may be applied to data that is not necessarily "desired" or "undesired," but any data that may, for example, undergo some other selection or automated imaging process. Further, Veeam does not explain how data blocks are "associated" with a "desired item." While the context of Claim 1 indicates that deleted items are not part of the image because of the deleting step, the Court finds there is no need to import Veeam's proposed limitation into the definition of "imaging" because it is not supported by the patent language.

The specification does clearly indicate the key element of the term "imaging" is the use of the block-by-block method:

> [A] distinction is noted above between file-by-file approaches, on the one hand, and sector-by-sector / cluster-by-cluster / other block-by-block approaches, on the other hand. That distinction helps define the term "image" in the claims and elsewhere in this document. A file-by-file backup is not an "image" in terms of the present invention, regardless of whether the term image is used in other documents to include file-by-file backup results. Likewise, creating a file-by-file backup is not "imaging" according to the meaning intended here.

'682, 2:63-3:5. Therefore, the Court adopts Symantec's definition and construes **imag[ing] . . . item** as:

creating a backup of an item using a block-by-block backup, not a file-by-file backup.

4. *snapshot view*

Symantec	Veeam
"state of the storage volume at the time the snapshot was created" amended construction: snapshot contents presented to users and/or applications	"snapshot contents presented to users and application software"

Symantec argues that the real dispute in light of Symantec's proposed amended construction is

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"whether the snapshot must be presented to users, or whether the snapshot need be presented only to the imaging application to fall within the claim scope." Reply at 13. The specification explicitly states: "A snapshot view, like a normal user 25 view without a snapshot mechanism intervening, includes a set of items presented to users and applications software." ('682, 4:24-26). However, at least one embodiment contemplates an automated deleter function of an application without presenting the view to a user: "In some embodiments, a deleter 632 is configured to automatically delete undesired files from at least one of the views." ('682, 13:24-26). As described, the deleter application automatically deletes files without user input, therefore, the pre-deleter view is not presented to a viewer. Because Veeam's proposed limitation is not present in all embodiments, the Court therefore adopts Symantec's proposed definition and construes **snapshot view** as: **snapshot contents presented to users and/or applications**.

CONCLUSION

For the foregoing reasons and for good cause shown, the Court adopts the constructions set forth above.

IT IS SO ORDERED.

Dated: March 8, 2013

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SUSAN ILLSTON
United States District Judge